

## Computer Architecture I Mid-Term II

Chinese Name: \_\_\_\_\_

Pinyin Name: \_\_\_\_\_

E-Mail ... @shanghaitech.edu.cn: \_\_\_\_\_

Question	Points	Score
1	1	
2	15	
3	13	
4	10	
5	10	
6	18	
7	20	
8	13	
Total:	100	

- This test contains 10 numbered pages, including the cover page, printed on both sides of the sheet.
- We will use gradescope for grading, so only answers filled in at the obvious places will be used.
- Use the provided blank paper for calculations and then copy your answer here.
- Please turn **off** all cell phones, smart-watches, and other mobile devices. Remove all hats and headphones. Put everything in your backpack. Place your backpacks, laptops and jackets out of reach.

- You have 120 minutes to complete this exam. The exam is closed book; no computers, phones, or calculators are allowed. You may use two A4 pages (front and back) of handwritten notes in addition to the provided green sheet.
- The estimated time needed for each of the 7 topics is given in parenthesis - roughly about 1 minute per point. The total estimated time is 110 minutes.
- There may be partial credit for incomplete answers; write as much of the solution as you can. We will deduct points if your solution is far more complicated than necessary. When we provide a blank, please fit your answer within the space provided.
- Do **NOT** start reading the questions/ open the exam until we tell you so!
- Unless otherwise stated, always assume a 32 bit machine for this exam.

1 1. First Task (worth one point): Fill in you name

Fill in your name and email on the front page and your ShanghaiTech email on top of every page (without @shanghaitech.edu.cn) (so write your email in total 10 times).